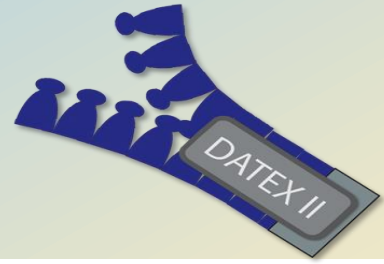




Jan Vlčinský – CDV v.v.i.

Marco Menichetti – Fondazione Legambiente Innovazione



# THE SUPERHUB PROJECT - DEVELOPING MULTIMODAL MOBILITY RELATED SERVICES



19 20 May 2014  
DATEX II User Forum - Prague

Experience with ITS Standards in a pan-European project


# Agenda



We believe that  
in a great  
mobility project  
people should  
be protagonists.



[www.superhub-project.eu](http://www.superhub-project.eu)

 [superhubproject](https://www.facebook.com/superhubproject)

 [@superhub1](https://twitter.com/superhub1)

 [www.linkedin.com/in/superhubproject](https://www.linkedin.com/in/superhubproject)

- Introduction
- SUPERHUB & DATEX
- Data in SUPERHUB
- The future

**Share real experience  
with using ITS Standards  
in a pan-European project**

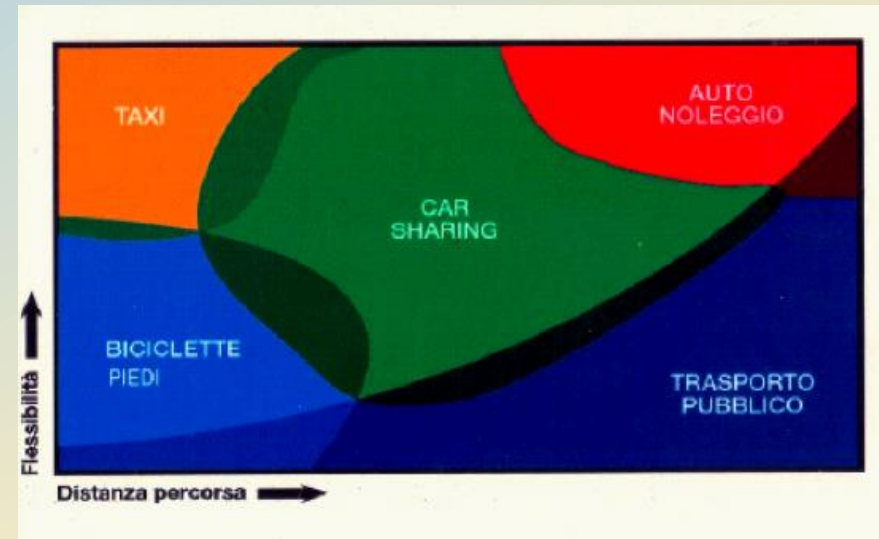
# Introduction (1)



## □ A NEW MOBILITY CONCEPT

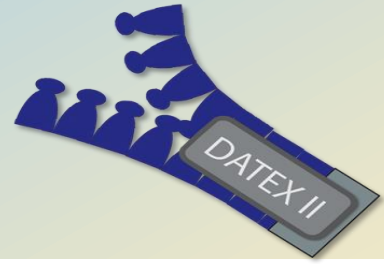


**The era of private cars is over.**



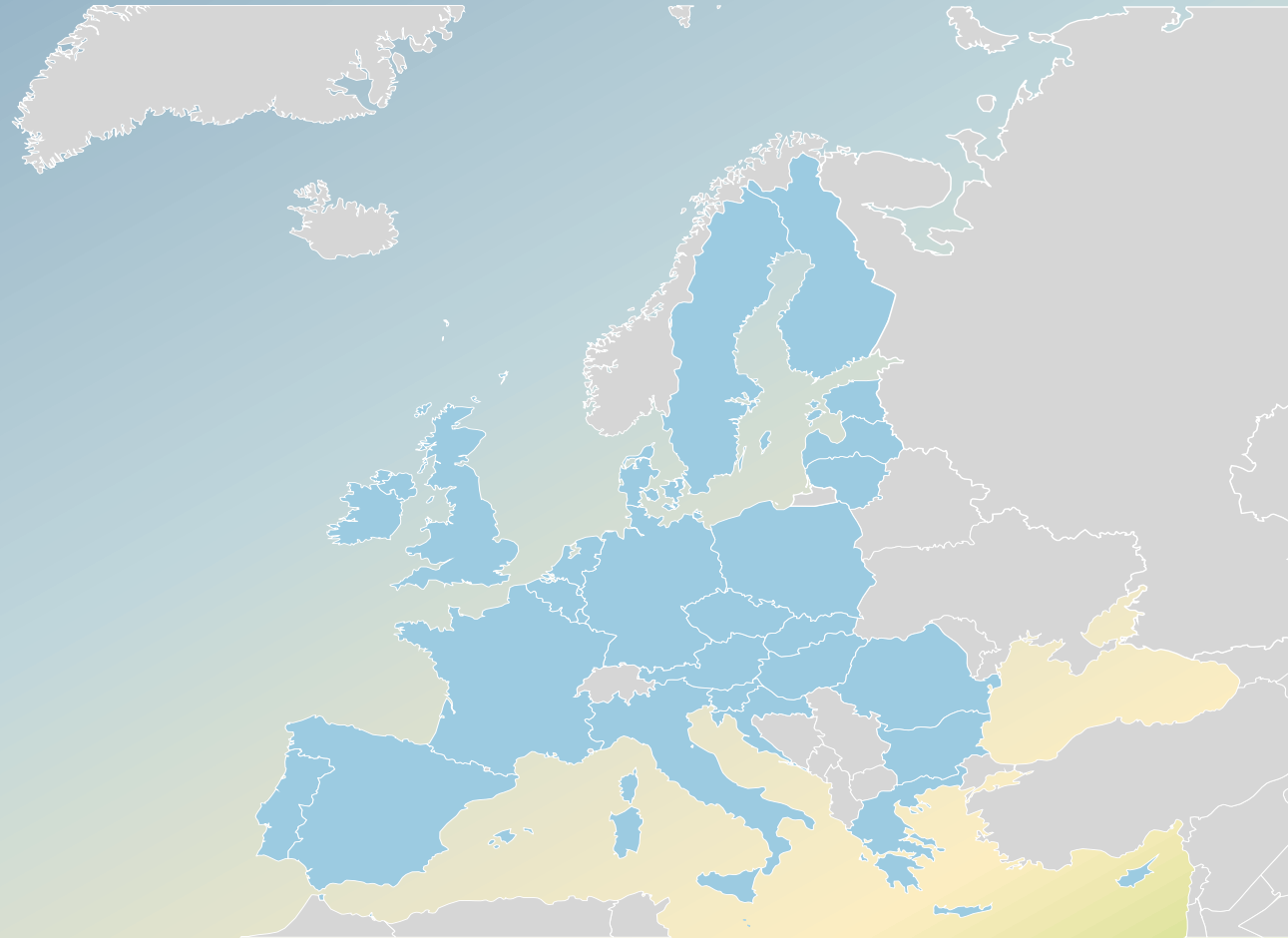
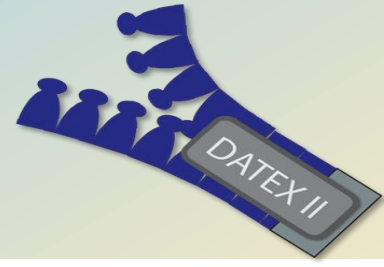
**Let's exploit heterogeneous and integrated transport modes!**

# Introduction (2)

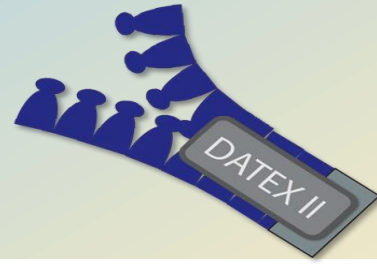


- ❑ **superhub-project.eu**
  - ❑ Multimodal journey planner
  - ❑ Tool for policy makers
  - ❑ Mobility services marketplace
- ❑ **Jan Vlčinský, CDV**
- ❑ **Marco Menichetti, FLI**

# SUPERHUB & DATEX in Space (1)



# SUPERHUB & DATEX in Space (2)



## ❑ SUPERHUB

- ❑ pan-European
- ❑ 20 partners from 6 Countries (IT, SP, CZ, UK, FI, BE)

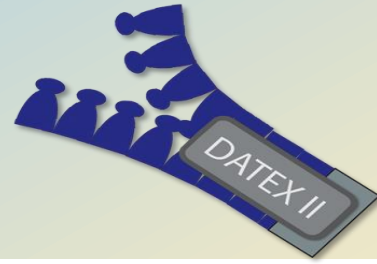
## Trial cities:

- ❑ Barcelona
- ❑ Milan
- ❑ Helsinki

## ❑ DATEX

- ❑ pan-European
- ❑ participants and DATEX Nodes across Europe

# SUPERHUB & DATEX in Time



## □ SUPERHUB

- 2011 - start
- 2014 - end
- 2014+ - superhub.org

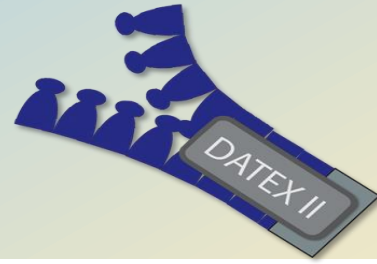
**A project turning into a long term activity.**

## □ DATEX

- DATEX - 10 years
- DATEX II - EasyWay (I), EasyWay (II), ...
  - User Forum (Rome, Berlin 2010, Stockholm 2012, Prague 2014, ...)

**A long term activity.**

# SUPERHUB & DATEX Domains



## ❑ SUPERHUB

- ❑ Application
- ❑ Public transport (time tables, real-time)
- ❑ Weather&pollution
- ❑ Social network data (Twitter, Instagram, Foursquare)
- ❑ Traffic and disruptive events on roads & public transport

**Wide user oriented.**

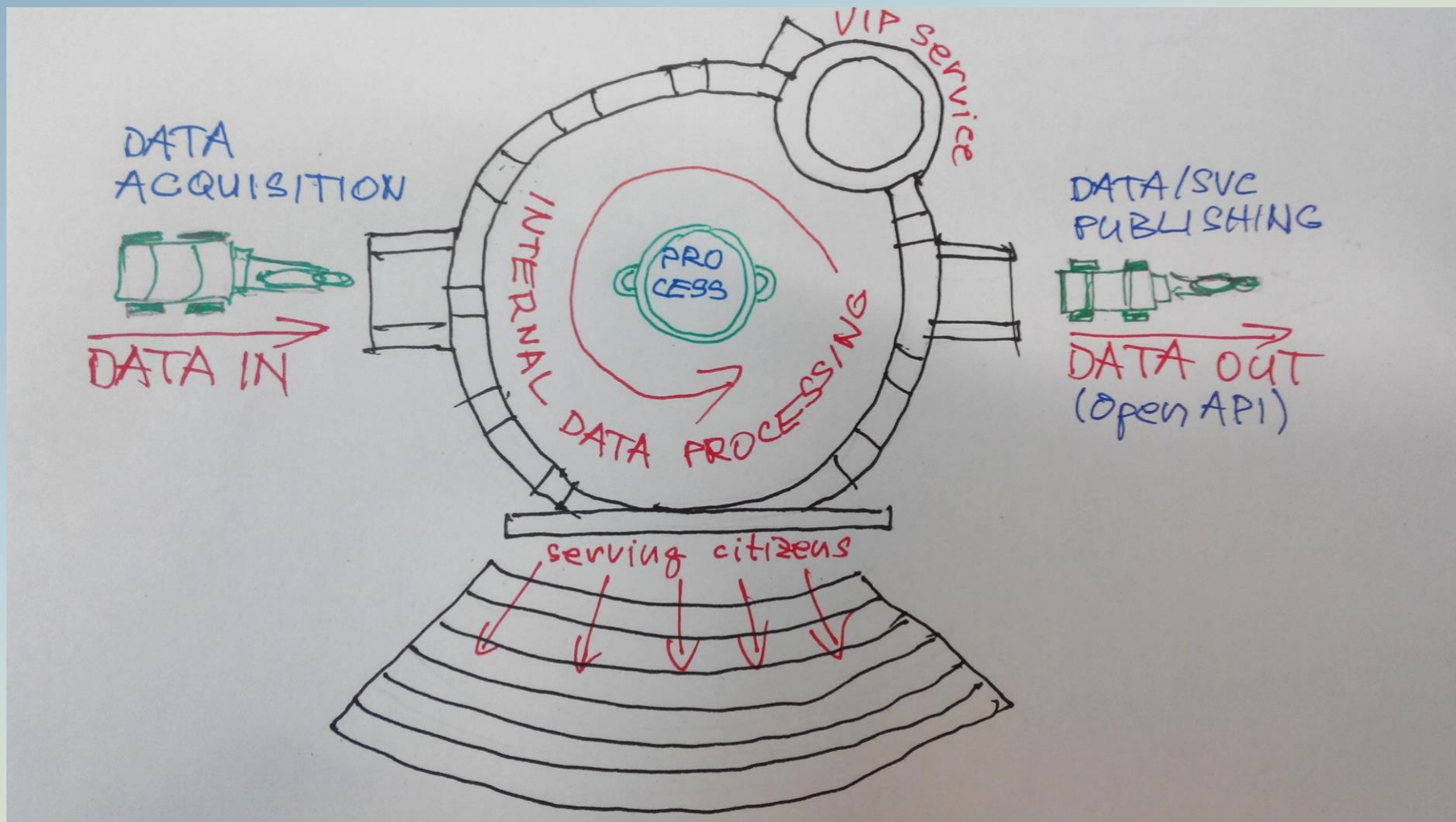
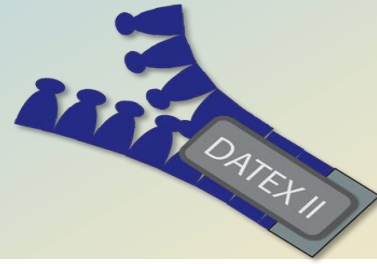
## ❑ DATEX

- ❑ SW and standard for applications
- ❑ Traffic information on roads

**Narrow domain focus.**



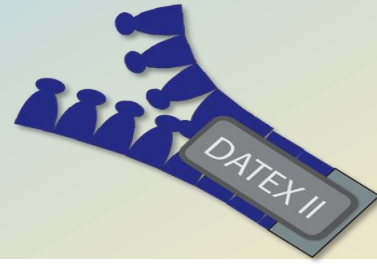
# My SUPERHUB, My Castle



# Data Acquisition (1)



# Data Acquisition (2)



## Data types:

- ❑ Weather, pollution
- ❑ Public Transport (timetables, real-time)
- ❑ Parking
- ❑ Vehicle sharing
- ❑ Demographic
- ❑ Maps
- ❑ Planned Events
- ❑ Social Networks

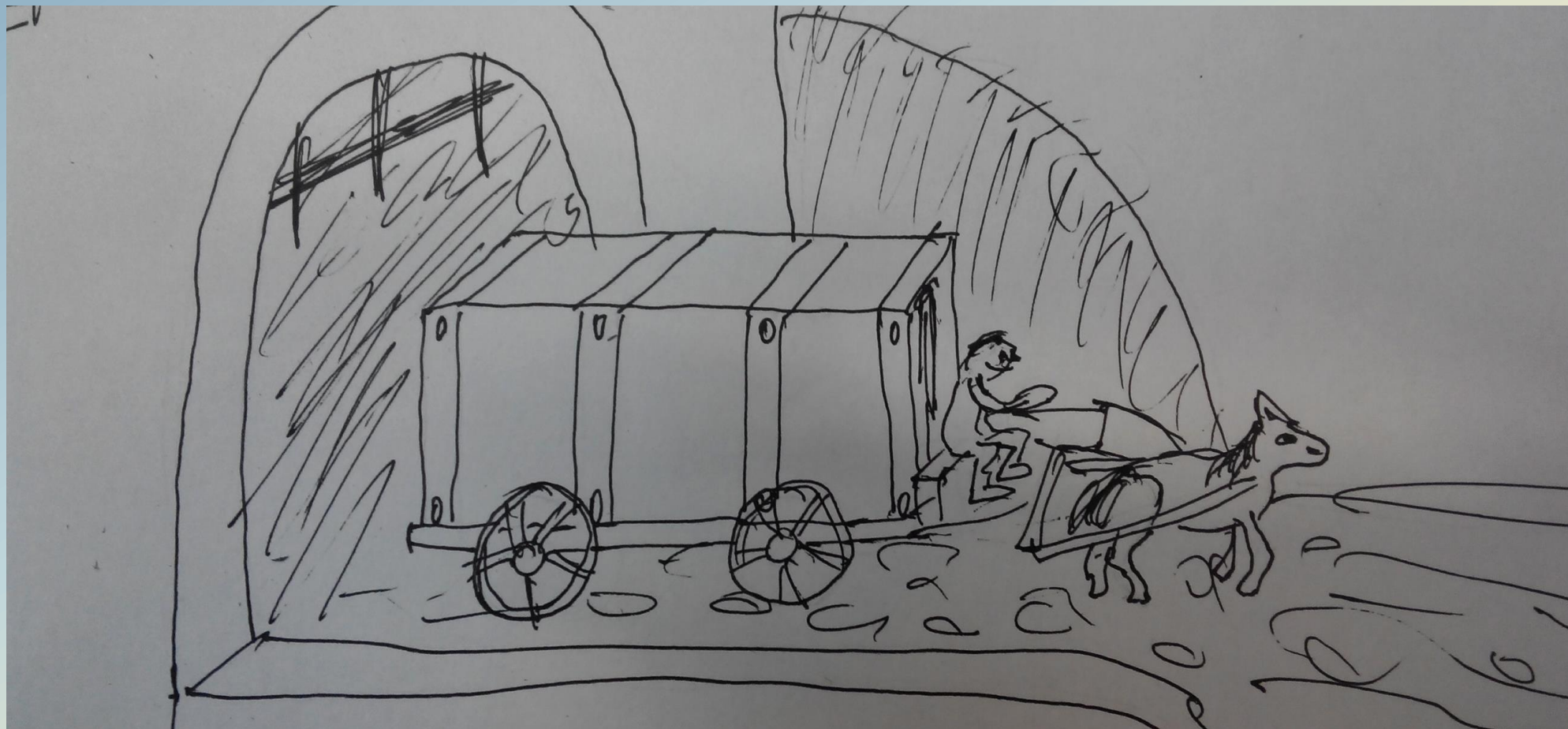
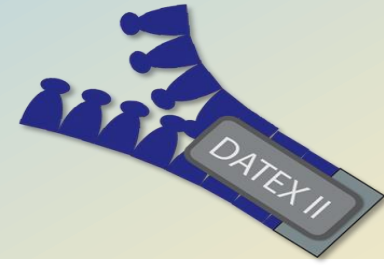
## Locations:

- ❑ Barcelona
- ❑ Helsinki
- ❑ Milan
- ❑ (Brno)

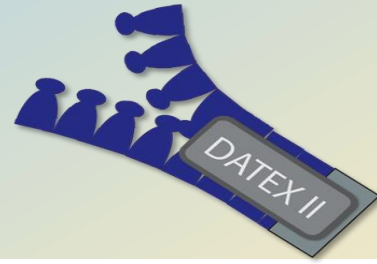
## 26 Sources (see table):

- ❑ Multiple per city
- ❑ Public authorities
- ❑ Private companies

# Publishing (1)



# Publishing (2)



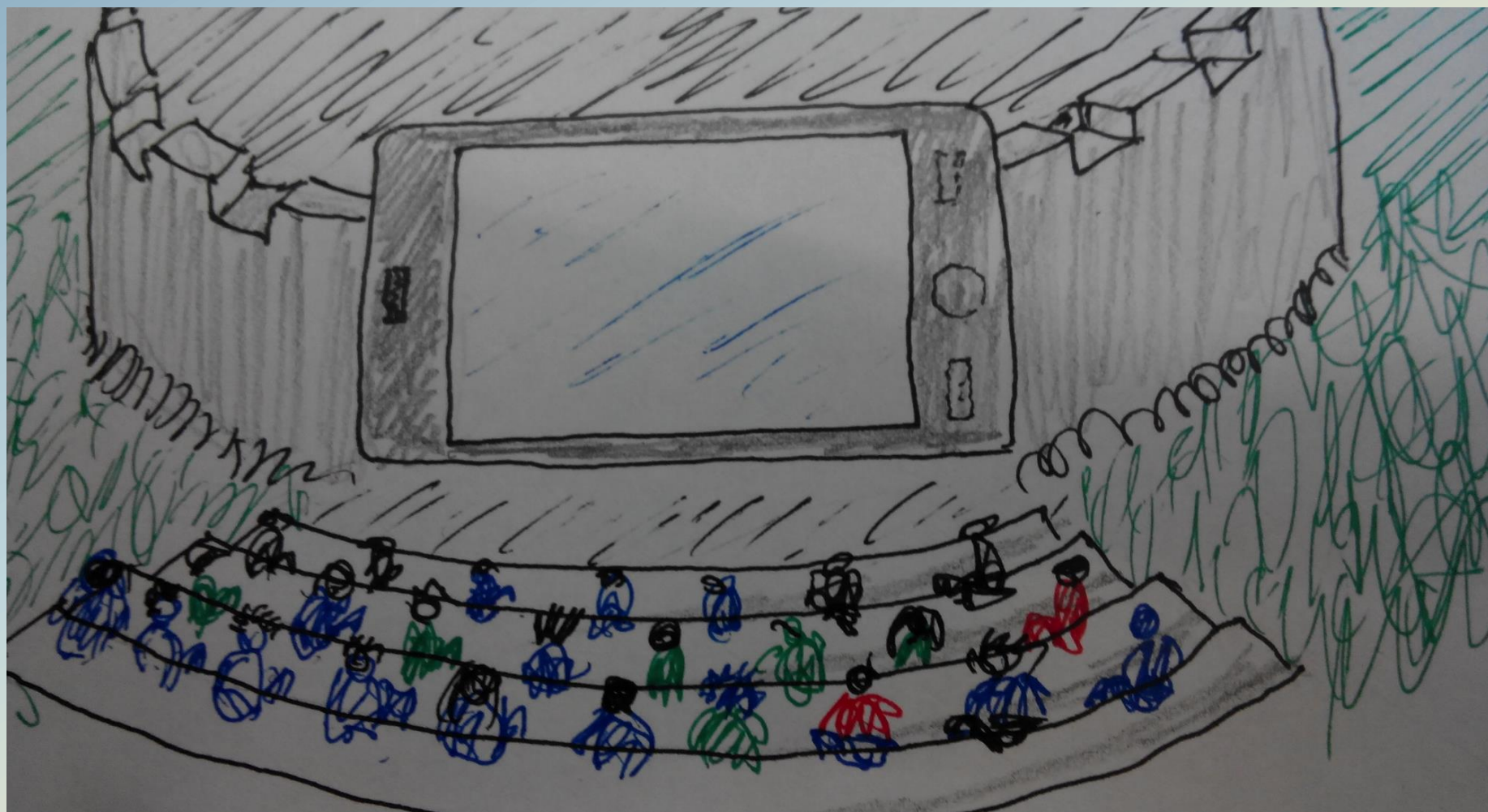
## ❑ **CONCEPTS**

- ❑ Legal
- ❑ Technically feasible
- ❑ Standard formats
- ❑ Demanded
- ❑ Economically feasible

## ❑ **DATA**

- ❑ Speed profile (DATEX II)
- ❑ Route planner service (?)
- ❑ Disruptive events (?)

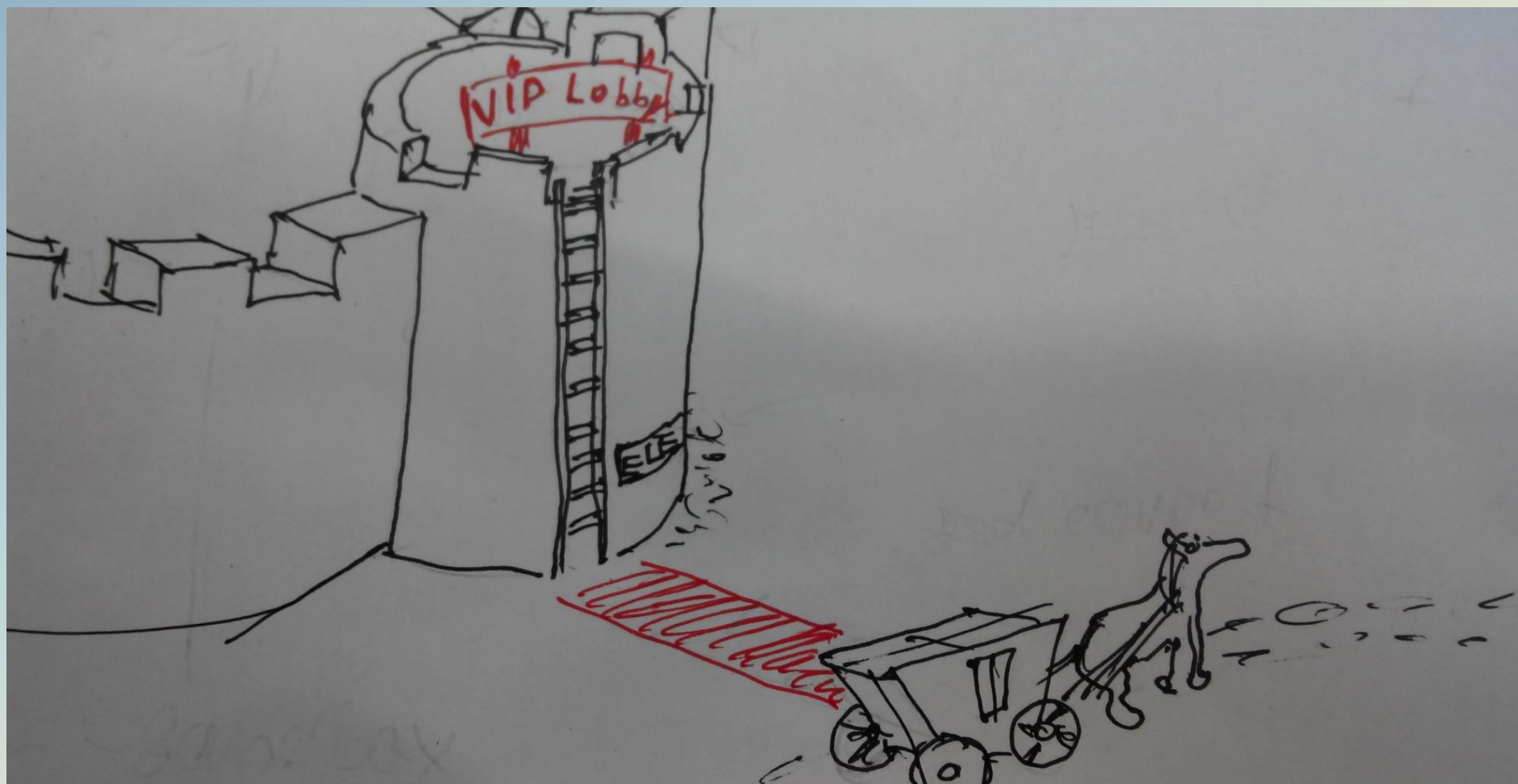
# With Citizens (1)



# With Citizens (2)

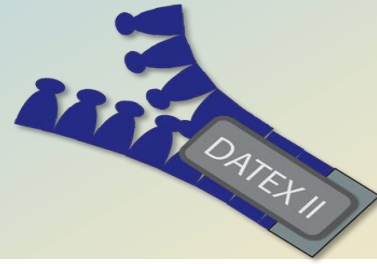


# With Policy Makers

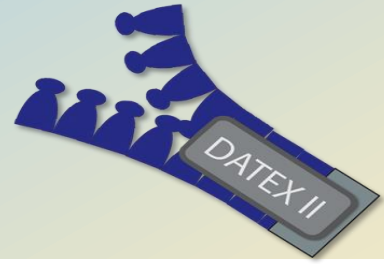




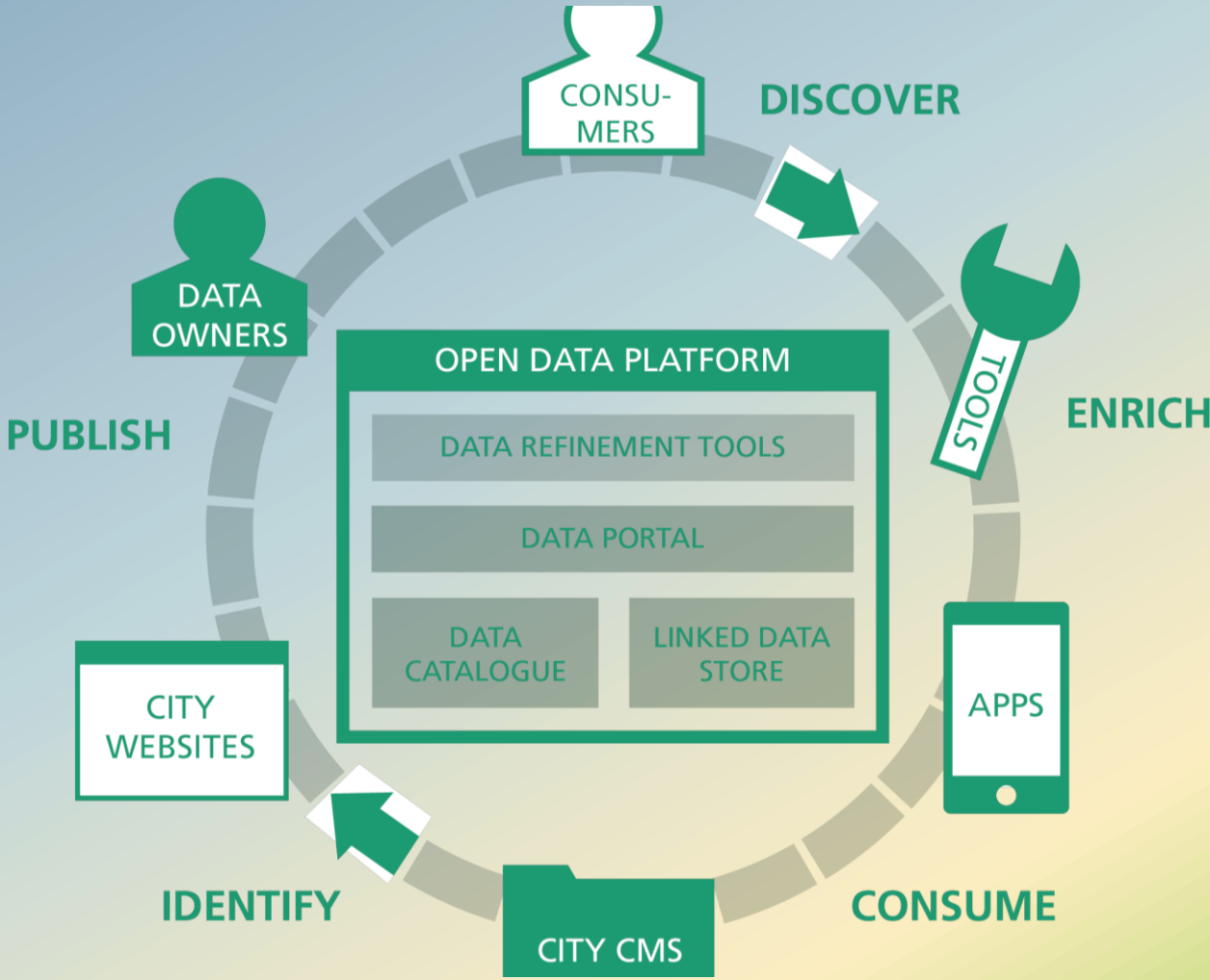
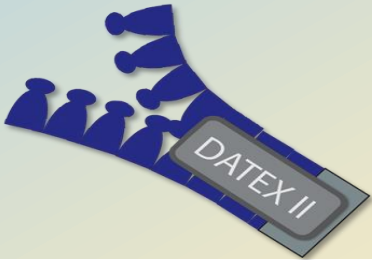
# Internal Data Processing



# Summarizing the Experience

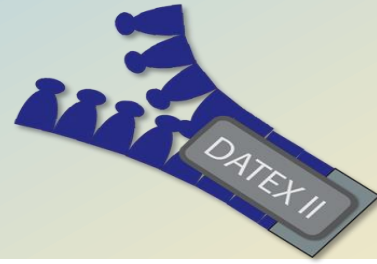


- ❑ **Open Data in Helsinki**
- ❑ **DATEX not yet in cities**
- ❑ **GTFS adopted (not SIRI)**
- ❑ **Validation tools importance**
- ❑ **Open API**
  - ❑ easy data sales
  - ❑ Open API Manifesto
  - ❑ 3scale.net



**Enabling interoperability of systems/services.**

# Thank you!



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## **SUPERHUB PROJECT:**

superhub-project.eu

 superhub project

 @superhub1

Monthly SUPERHUB newsletter

## SUPERHUB External Data Sources

TYPE	CITY	NOTES	FORMAT
Weather	Helsinki, Milan, Barcelona	Weather data retrieved from <b>The Weather Underground, LLC</b>	JSON
Public Transportation	Helsinki	Public Transportation timetables and dynamic data provided by the <b>Helsingin Seudun Liikenne-KunTayhtyma</b> (Helsinki Regional Transport Authority)	GTFS
Public Transportation	Milan	Public Transportation timetables and dynamic data provided by the Public Transportation timetables provided by <b>Agenzia Mobilità Ambiente e Territorio:</b> (Mobility and Environment Agency of Milan)	GTFS
Public Transportation	Milan	Public Transportation dynamic data provided by <b>Azienda Trasporti Milanesi</b> (Milan Transport Authority)	GTFS
Public Transportation	Milan	Public Transportation timetables and dynamic data provided by <b>Autoguidovie</b> (Milan Transport Authority)	GTFS
Public Transportation	Barcelona	Public Transportation timetables and dynamic data provided by <b>Transports Metropolitans de Barcelona</b>	GTFS
Public Transportation	Barcelona	Public Transportation timetables provided by <b>Generalitat Catalunya</b> (Government of Catalonia)	GTFS
Public Transportation	Barcelona	Public Transportation timetables provided by Tramvia Metropolitana, SA ( <b>TramMet</b> )	GTFS
Public Transportation	Barcelona	Public Transportation timetables provided by <i>TO BE DONE</i>	
Parking	Helsinki	Parking data provided by <b>Helsingin Seudun Liikenne-KunTayhtyma</b> (Helsinki Regional Transport Authority) <i>TO BE CONFIRMED</i>	GTFS
Parking	Milan	Parking data provided by <i>TO BE DONE</i>	
Vehicle sharing	Milan	Bike sharing data retrieved from <b>City Bikes</b> (data from <b>bikeMi</b> )	JSON
Vehicle sharing	Barcelona	Bike sharing data retrieved from <b>City Bikes</b> (data from <b>Bicing</b> )	JSON
Vehicle sharing	Milan	Car sharing data retrieved from <b>Car2Go</b>	JSON
Pollution	Barcelona	Pollution data retrieved from <b>Generalitat Catalunya</b> (Government of Catalonia) using a <b>BDIGITAL</b> API	JSON
Demographic	Helsinki	Demographic statistical data provided by "Tilastokeskus" <a href="http://www.stat.fi/tup/tilastotietokannat/index_en.html">http://www.stat.fi/tup/tilastotietokannat/index_en.html</a> (Finland National Office of Statistics)	several proprietary formats

Demographic	Helsinki	Demographic statistical data provided by <b>Trafi</b> (Finnish Transport Safety Agency)	several proprietary formats
Demographic	Helsinki	Demographic statistical data provided by <b>Liikennevirasto</b> (Finnish Transport Agency)	several proprietary formats
Demographic	Milan	Demographic statistical data provided by <b>ISTAT</b> (National Institute of Statistics in Italy)	several proprietary formats
Demographic	Milan	Demographic statistical data provided by <b>Comune di Milano</b> (Milan Municipality)	several proprietary formats
Demographic	Milan	Demographic statistical data provided by <b>Automobile Club Italiano</b>	several proprietary formats
Demographic	Milan	Demographic statistical data provided by Banca Dati dell'uso e copertura del suolo ( <b>DUSAF</b> )	several proprietary formats
Demographic	Barcelona	Demographic statistical data provided by Generalitat Catalunya (Government of Catalonia) <b>Idescat</b>	several proprietary formats
Demographic	Barcelona	Demographic statistical data provided by <b>Dirección General de Tráfico</b>	several proprietary formats
Demographic	Barcelona	Demographic statistical data provided by <b>Ajuntament de Barcelona</b> (Barcelona City Council)	several proprietary formats
Planned Events	Barcelona, Helsinki, Milan	Planned Events:Massive events provided by <b>Eventbrite</b> and <b>Last.fm</b>	JSON